

NH ENVIROTHON: Soil Scientists of the Future

The 2017 NH Soils Conference
USDA Natural Resources Conservation Service

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The logo of Hellenic American University, featuring a circular wreath of olive and oak branches.

HellenicAmericanUniversity

ENVIROTHON

1. **Aquatics** (physical, chemical, biological)
2. **Forestry** (ecology, identification, management)
3. **Soils** (formation, functions, identification)
4. **Wildlife** (biology, identification, habitat)
5. **Current Issue** (social, economic, ecological)

ENVIROTHON: Brief History

- Started in 1979 in PA: *Environmental Olympics*
- 1980: *Enviro-Olympics*
- 1988: ENVIROTHON; 1st national competition
- 1990: Big expansion to other states
- 1993: Canada team; 20 Teams, NH came in 2nd
- 1995: 30 Teams, NH came in 2nd
- 1996: 33 Teams, NH came in 5th

ENVIROTHON: Brief History

- 1997: Canon USA became sponsor
- 1997: Scholarships offered to winners
- 1997: 34 Teams, NH came in 5th
- 1998: Name changed to Canon ENVIROTHON
- 2001: 49 teams, NH came in 5th
- 2002: 50 teams, NH came in 1st

ENVIROTHON: Brief History

- 2003: 47 Teams, NH came in 2nd
- 2007: 20th Anniversary, 53 teams
- 2008, 2009, 2010: NH in top Ten
- 2013: 54 Teams (9 Canadian Provinces)
- 2013: NH came in 4th (Keene High School)
- 2016: The National Conservation Foundation Envirothon

NH ENVIROTHON: Timeline

- **September:** Teams are typically formed
- **October:** Work is begun on ***Current Issue Challenge***
- **December:** Current Issue released to teams
- **April:** Training Day
- **May:** State competition
- **August:** National competition

Aquatics

General Learning Goals

- a) Assess water quality using tables and graphs
- b) Interpret topographic maps
- c) Identify macroinvertebrates
- d) Understand sources of pollutants

Forestry

General Learning Goals

- a) Identify common trees w/o key
- b) Understand Forest Ecology concepts
- c) Understand wildlife/forest relationships
- d) Understand basic forest management concepts
- e) Measure trees and estimate volume

Wildlife

General Learning Goals

- a) Identify common NH wildlife using pictures, calls, pelts, mounts, shells, scat, tracks
- b) Describe food chains and food webs
- c) Describe habitat requirements for NH wildlife
- d) Define basic ecological concepts
- e) Describe human impacts on wildlife

Soils

General Learning Goals

- a) Identify soil formation factors
- b) Describe soil functions
- c) Identify soil horizons
- d) Understand soil drainage classes
- e) Identify soil building practices

2017 Current Issue:

Agricultural Soil and Water Conservation Stewardship

Student learning Outcomes

- 1) Identify and recommend soil and water conservation best management practices in agriculture.
- 2) Describe the role of NH's conservation districts and the federal government in conservation programs that benefit both agricultural producers and the environment.
- 3) Identify the concept of soil quality/health to provide the needed functions for the conservation planning process.

2017 Current Issue:

Agricultural Soil and Water Conservation Stewardship

Student learning Outcomes (cont')

4) Identify various types of soil properties and utilize different methods to estimate and predict soil degradation to assess land use impacts.

5) Explain why land-use planning is important to our ecosystems and to our economy to achieve sustainable agriculture.

2017 NH Competition Tasks

Oral Presentation Includes:

- A description of Soil Stewardship Best Management Practices appropriate for NH Farms
- A description of the resources (both economic and technical) available to farmers to implement BMPs that describes the organizations providing those resources
- An explanation of your lines of communication with NH Conservation Districts and farmers

2017 NH Competition Tasks

Oral Presentation Includes:

- A map of current land use and soils in your study area which includes a description of all symbols on map
- A description of BMPs currently implemented at your study area (including any returns on investment as described by farmers)
- A description of your recommended BMPs which includes an **explicit cost-benefit analysis**
- Any feedback from farmers who have implemented (or are considering implementing) your recommended BMPs

More Information?

New Teams? Judges?

NH ENVIROTHON Website:
<http://nhenvirothon.org/>

Coordinator: Sue Kessler
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Head Judge: John Slater
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